

Notice of Allowability

Application No.

09/848,625

Examiner

Terry L Englund

Applicant(s)

HENRY ET AL.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Amdt (Mar 3, 2004) and Interview (Mar 19, 2004).
2. ☒ The allowed claim(s) is/are 7-13, and 27-33 (now renumbered 1-14, respectively for printing purposes).
3. ☒ The drawings filed on 18 October 2002 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

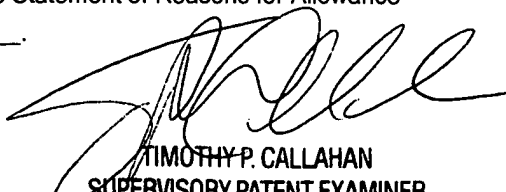
Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date 03192004.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.


TIMOTHY P. CALLAHAN
SUPERVISORY PATENT EXAMINER

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to the applicants, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with the applicants' representative Mark R. Hennings (Reg. No. 48,982) on Mar 19, 2004.

The application has been amended as follows:

Claim 27, line 6: deleted "provides";

line 9: changed "a pin" to --the input pin--; and

line 10: changed "the pin" to --the input pin--.

The changes to claim 27 addressed an objection, and a rejection under 35 U.S.C. 112, described in the previous Office Action that had been inadvertently overlooked. On line 6, the previously recited "provides determines" now recites only "determines", improving word flow and corresponding to a related "logic state" limitation recited on line 6 of each of independent claims 8, 32, and 33. To minimize possible confusion between "an input pin" on line 6 with "a pin" and "the pin" recited on lines 9 and 10, respectively, lines 9 and 10 were amended to clearly refer back to the line 6 recitation. These limitations now correspond to those recited within claims 8 (lines 9 and 10), 32 (lines 8 and 9), and 33 (lines 8 and 9). Also, using the applicants' own Fig 7 as an example, although pin PWR could be considered an input pin that receives a first signal 320 (i.e. a power voltage with respect to Supply Signal 310) output from signal transfer circuit M1,M2, signal 320 would not typically be considered as actually determining the

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logic state (understood to be either a high or low logic) of input pin PWR. However, pin CLR clearly receives a logic state from the output of inverting circuit/Schmidt trigger 540, which receives a first signal from signal transfer circuit M3,M4, a second signal from C2; and bias signal Bias. Therefore, with respect to the Fig. 7 circuit 700, the “pin” related limitations recited within claim 27 are understood to correspond to pin CLR of Memory Circuit 710 because: 1) first signal 320 from M1,M2 would not be considered a means for determining a logic state of pin PWR; and 2) first signal 320 is not provided to inverting circuit 540.

RESPONSE TO AMENDMENT

The amendment submitted on Mar 3, 2004 was reviewed and considered with the following results:

The cancellation of claims 1, 2, 5, 6, 19, and 20 rendered their respective rejections under 35 U.S.C. 102(e) and 35 U.S.C. 103(a), as described in the previous Office Action, moot.

The objection to claim 27, upon which claims 28-31 depend, was inadvertently overlooked by the amended claims within the applicants' amendment. However, the objection was addressed/corrected by a change within the Examiner's Amendment described above. Therefore, the objection to claims 27-31 have been withdrawn.

Although the amended claims overcame most of the rejections of claims 7-13, and 27-33 under 35 U.S.C. 112, second paragraph as described in the previous Office Action, the “pin” related rejection of claim 27 had also been inadvertently overlooked. This was addressed/corrected by the Examiner's Amendment described above, and all of the rejections of claims 7-13, and 27-33 have now been withdrawn.

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Note: The applicants' amended claims 7, 32, and 33 were confusing at first with respect to how they had been changed from the previous version of the claims. For example: 1) claim 7 now appears to be a completely amended claim because it underling implies everything was changed with nothing to indicate any original (or previously recited) limitation(s) remained. However, the phrase "a second transistor arranged to prevent drain from the charge storage circuit through a body diode of the second transistor" on lines 7-8 carries over the basic limitations recited within the previous version of claim 7 with one exception, the amended version now has "second" added prior to the last occurrence of "transistor." The rest of the changes within claim 7 are understood to relate to its conversion from a dependent claim to an independent claim.; and 2) nothing on line 9 of either claim 32 or 33 indicates a change was actually made. The previous version cited "the bias signal", wherein the present amended claims now both cite "a bias signal" on line 9 (the underlining indicating the actual change made). This change addresses a 35 U.S.C. 112 rejection of claims 32 and 33 described on the previous Office Action's page 4.

Therefore, between the applicants' amendment, and the Examiner's Amendment described above, there is no known objection or rejection remaining within the present application.

REASONS FOR ALLOWANCE

The following is an examiner's statement of reasons for allowance:

None of the prior art references reviewed and considered show or disclose the apparatus, or related method, for protecting a circuit from a transient event as recited within independent apparatus claims 7, 8, 27, 32, and 33, and within method claim 32. More specifically, none of

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the references clearly show or disclose: 1) the signal transfer circuit comprising the first/second transistors as recited within claim 7, wherein the control terminal of the first transistor is coupled to ground, and the body diode of the second transistor prevents drain from the charge storage circuit; 2) the inverting circuit (or means for generating an output signal) receives (or responds to) a bias signal, as well as to the first/second signals, wherein the inverting circuit/generating means holds the input pin high during the circuit's startup, and holds the input pin low during normal operation and transient events as recited within claims 8 (upon which claims 9-12 depend); 27 (upon which claims 28-31 depend), and 33; and 3) an output signal is generated in response to the first, second, and bias signals, thus holding the input pin high during startup, and low during normal operation and transient events as recited within claim 32. Since there is no strong motivation to modify or combine any prior art reference(s) to ensure those specific limitations are met, the claims are deemed patentably distinct over the prior art of record.

Claims 7-13, and 27-33 are allowable, and have been renumbered as claims 1-14, respectively for printing purposes. The renumbering takes into account the cancellation of claims 1-6, and 14-26.

Any comments considered necessary by the applicants must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication, or previous communications, from the examiner should be directed to Terry L. Englund whose telephone number is (571) 272-1743. The examiner can normally be reached Monday-Friday from 7 AM to 3 PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tim Callahan, can be reached on (571) 272-1740.

The new central official fax number is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (571) 272-1562.

TLE

Terry L. Englund

19 March 2004